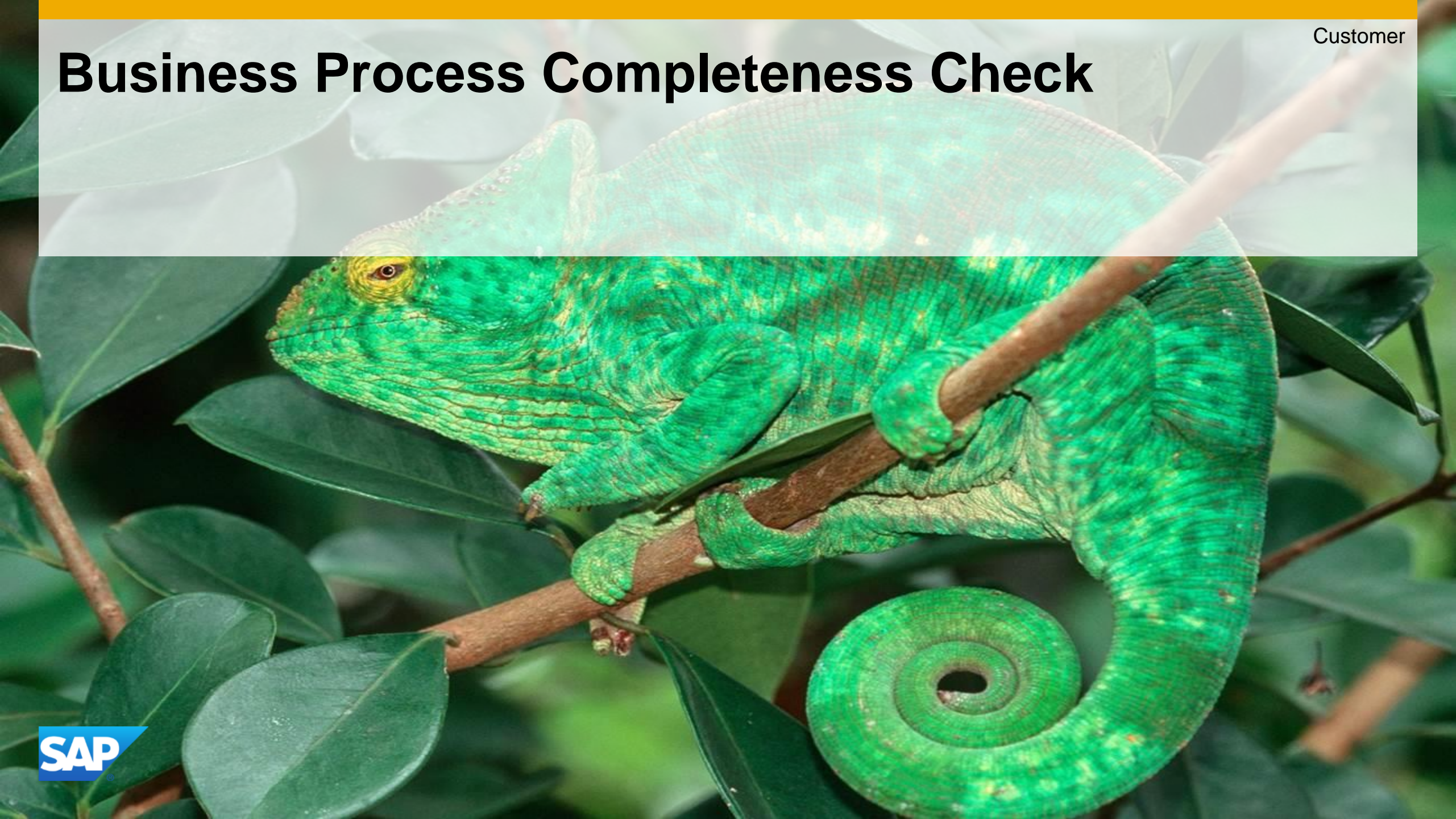


Business Process Completeness Check



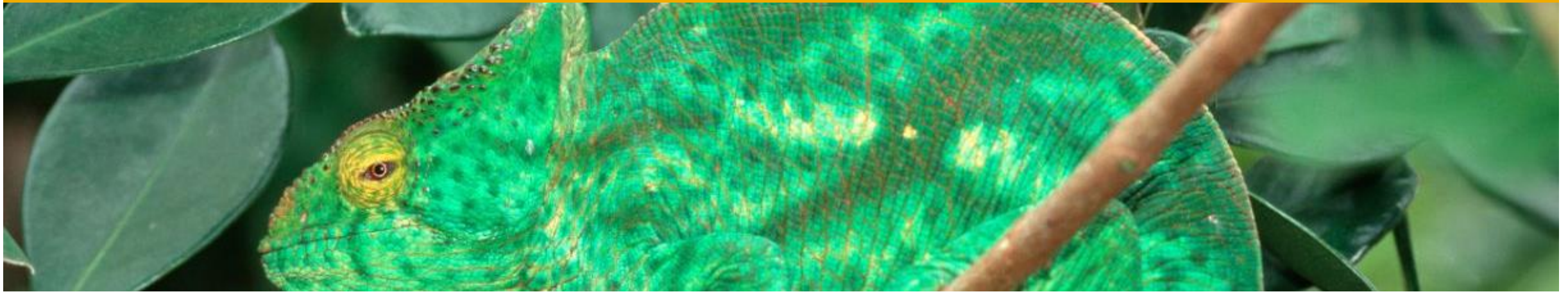
Agenda



Introduction

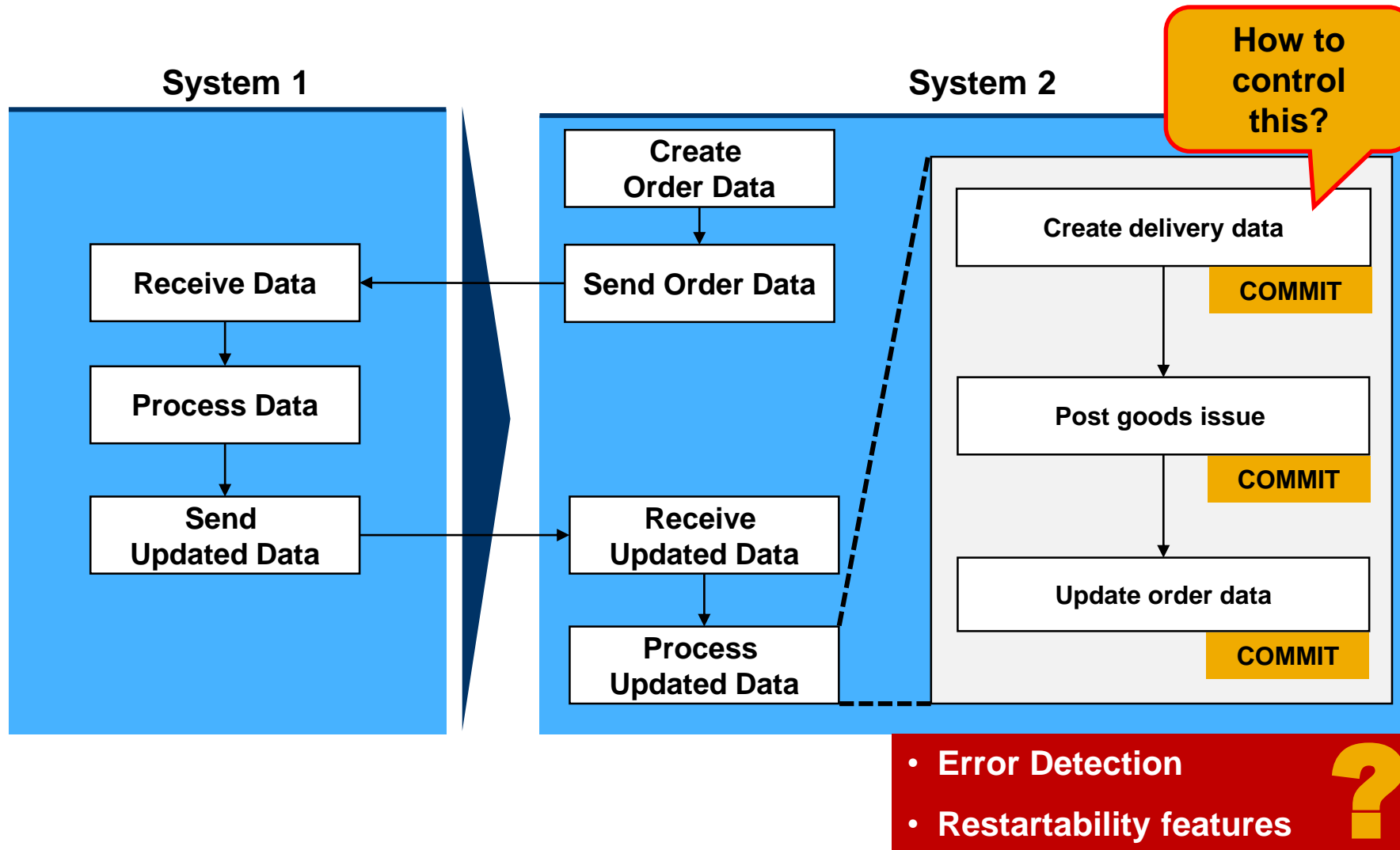
- Motivation
- Concept

Business Example



Introduction

Main Motivation: Interfaces violating LUW-principles



Pain points

- No visibility
- High number of inconsistencies
- Support invents the wheel over and over again

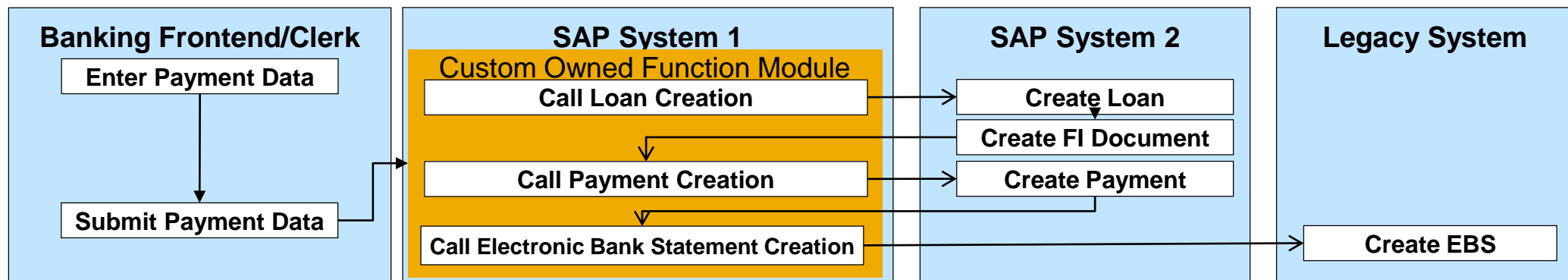
→ Create a simple to use instrumentation platform and evaluation framework

Business Process Completeness Check

Motivation – BPPC as part of Exception Management

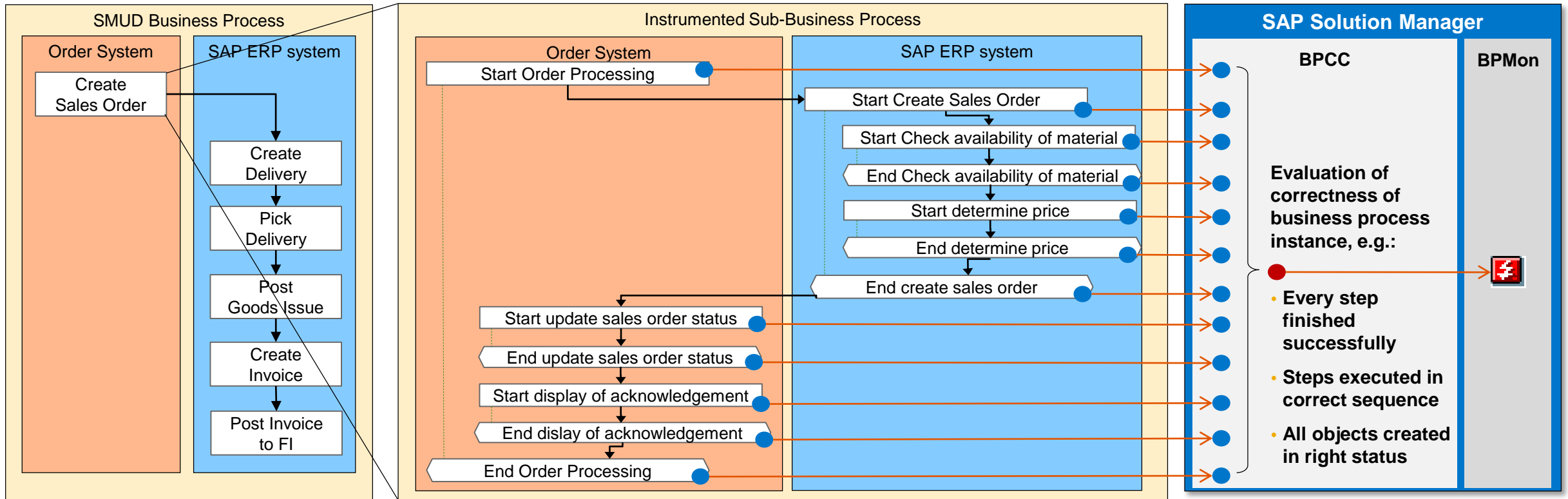
From customer projects, the requirement was derived to **monitor execution of critical parts in a business process**. Main focus of the monitoring should be on the **successful execution of the process in the correct sequence and business objects changed during the process**. Therefore **Business Process Completeness Check** was introduced as part of Exception Management.

The critical sub processes can have synchronous steps which span across several systems. As an example, the step „Submit Payment Data“ in the example below is triggered in the Banking Frontend. Afterwards, the processing runs across multiple systems. BPPC can be used to monitor all steps and ensure the completeness of the sub process.



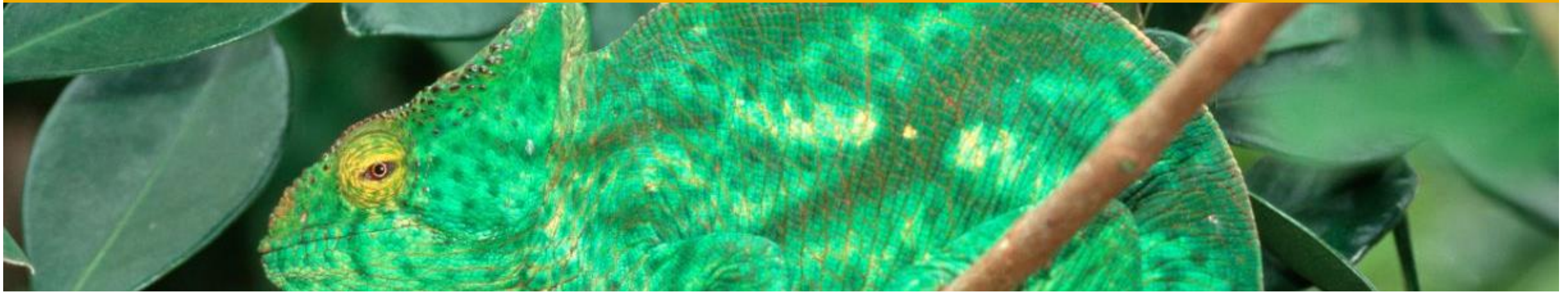
Business Process Completeness Check

Concept - Documented Process and Instrumentation



The **documented business process** is the **complete E2E-business process** often as seen by the end user / business user

The **process seen in BPC** contains details about **instrumented critical areas**



Business Example

Business Example

Persona

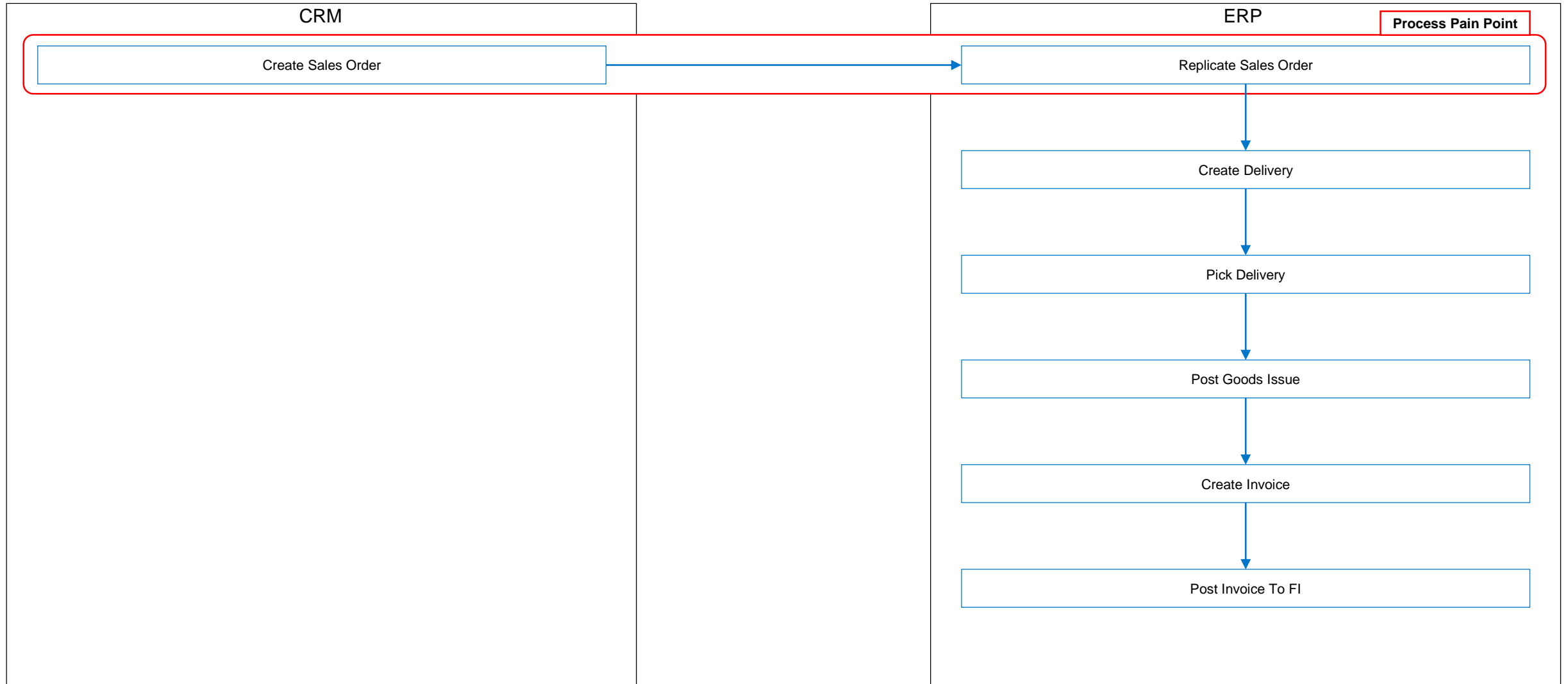


John is a business manager who wants to know if the Order To Cash process is running through without errors. He is in particular interested in the Order Creation and Replication to ECC process because this part is the pain point of the current process.

Jane from the IT department wants to setup Business Process Completeness Check (BPCC) in Solution Manager 7.2 to meet John's requirement.

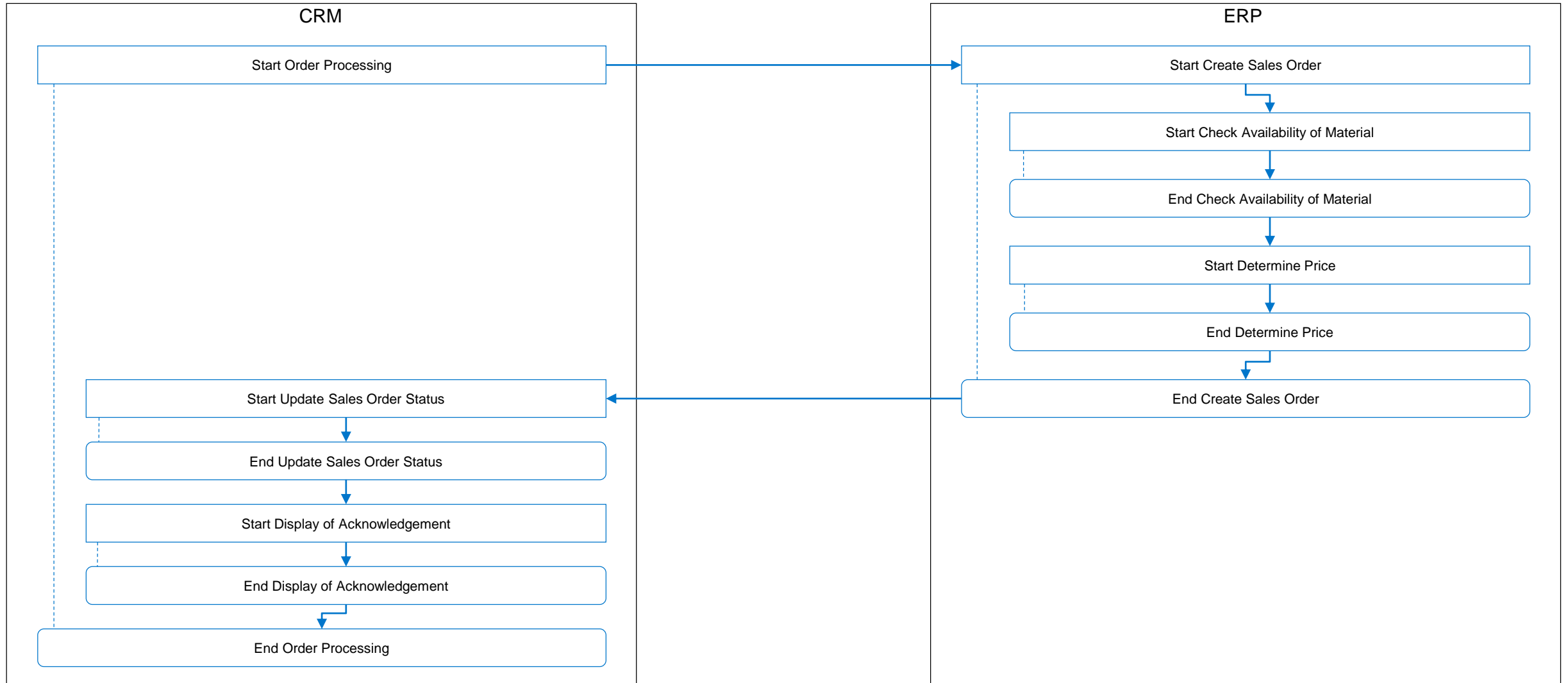
Business Example

Business Process



Business Example

Sub Process „Create Order – Replicate Order“ (Process Paint Point)



Business Example

Step-by-Step

In the following slides, the process of implementing John's requirement is described. Furthermore the result is explained and first approaches for analysis are provided. For detailed information regarding source code instrumentation and system configuration, refer to the [BPCCC Setup Guide](#).

- Instrumentation
 - Prerequisite: Business Process description of Order to Cash process
 - Jane will use explicit and implicit enhancements options in order to instrument the source code modules of the Create Order sub process

```
1 |-----*
2 | * Report: ZDCM_BPCC_PLAYGROUND
3 | *
4 | *-----*
5 |
6 | REPORT zdcm_bpcc_example.
7 |
8 | DATA: ls_bapiret TYPE bapiret2,
9 |       lt_bapiret TYPE TABLE OF bapiret2,
10 |      lt_parameter TYPE /sdf/em_parameter_tt,
11 |      ls_parameter TYPE /sdf/em_parameter_s,
12 |      lt_object_key TYPE /sdf/em_object_key_tt,
13 |      ls_object_key TYPE /sdf/em_object_key_s.
14 |
15 | START-OF-SELECTION.
16 |
17 | * BPCCC - Initialize business process instance
18 | /sdf/cl_em_ipa_write=>initialize_process(
19 |   EXPORTING
20 |     i_bpi_id           = cl_system_uid=>if_system_uid-static-create_uid_c32( ) * Business process instance ID
21 |     i_bpt_id           = 'Z02C' * Business Process Type ID
22 |   ).
23 |
24 | /sdf/cl_em_ipa_write=>start_simple_step( i_step_name = 'Order Processing' ).
25 |
26 | CALL FUNCTION 'ZBPCCC_UI'
27 |   DESTINATION 'SM_FBTCLNT200_TRUSTED'.
28 |
29 | ls_bapiret-message = 'Order Processing successful'.
30 | ls_bapiret-type = 'S'.
31 | APPEND ls_bapiret TO lt_bapiret.
32 |
33 | /sdf/cl_em_ipa_write=>end_simple_step( lt_bapiret = lt_bapiret ).
34 |
35 | /sdf/cl_em_ipa_write=>start_simple_step( i_step_name = 'Update Sales Order Status' ).
36 | CLEAR ls_bapiret.
37 | ls_bapiret-message = 'Update Sales Order Status successful'.
38 | ls_bapiret-type = 'S'.
39 | APPEND ls_bapiret TO lt_bapiret.
40 | /sdf/cl_em_ipa_write=>end_simple_step( lt_bapiret = lt_bapiret ).
41 |
42 | /sdf/cl_em_ipa_write=>start_simple_step( i_step_name = 'Display of Acknowledgement' ).
43 | CLEAR ls_bapiret.
44 | ls_bapiret-message = 'Display of Acknowledgement successful'.
45 | ls_bapiret-type = 'S'.
46 | APPEND ls_bapiret TO lt_bapiret.
47 | /sdf/cl_em_ipa_write=>end_simple_step( lt_bapiret = lt_bapiret ).
48 |
49 | /sdf/cl_em_ipa_write=>save_data( ).
```

Business Example

Step-by-Step

- Configuration

- 1) Jane has to configure the managed systems used in the Create Order process for BPCC
- 2) Furthermore Category, Subcategory and Process Type have to be configured
 - Afterwards the instrumented source code will store BPCC-relevant data on Solution Manager

1

System ID	System Type	CI...	Landscape API ID	Ty...	S...	Log Store	Category
FBT	ABAP	200				IPA from FBT	Exception Management IP

Product System	Exception Mode	Journal Mode	Trace Mode	Callstack	Payload	Application Log	Test Mode
FQ7(200)-ABAP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FA7(200)-ABAP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SD7(200)-ABAP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FBT(200)-ABAP	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2

The screenshot shows three configuration screens in SAP:

- Business Process Category:** A table with columns for Category ID and Category. The selected row is 'O2C' with category 'Order To Cash'. Other rows include '0_CBTA_TEST' (CBTA Test Category), 'Unspecified Process' (Unspecified Process), and 'ZJF_TEST' (ZJF_TEST).
- Business Process Subcategory:** A table with columns for Subcategory ID and Subcategory. The selected row is 'OC' with subcategory 'Order Creation'. Other rows include '0_CBTA_TESTSUB' (CBTA Test SubCategory), 'Unspecified' (Unspecified), and 'ZJF_TEST1' (ZJF_TEST1).
- Business Process Type:** A table with columns for Process Type ID, Category, and Subcategory. The selected row is '202C' with category 'Order To Cash' and subcategory 'Order Creation'. Other rows include '0001' (CBTA Test Category, CBTA Test SubCategory), '9999' (Unspecified Process, Unspecified), 'ZJF1' (ZJF_TEST, ZJF_TEST1), and '202C' (Order To Cash, Order Creation).

Business Example

Step-by-Step

- Execution
 - The Create Order process has to be executed automatically / manually
- Open BPCC process flow for the instance
 - John can open the BPCC instance details and process flow using the Exception Management Cockpit (EMC)
 - In the Detail screen, John can see that the instance is in error state
 - In order to get a graphical overview where the process ran into problems, he opens the Process Flow

View: [Standard View] | BPCC Process Flow | Print Version | Export

Category	Type	Source	Error	Warning	Successful	Unknown
Order to Cash			12	0	3	4
Unspecified Process			0	0	3	0
ZO2C			1	0	0	10
ABAP Runtime Error			42	0	0	0
SAP C4C Application Errors			64	0	0	0
SAP HANA Cloud Integration			98	0	0	0
VinceDefaultTrc			13.088	0	0	0
Web Service Consumer			2.930	0	0	0

Last Refresh: 18.11.2015 13:30:58 CET Refresh

Instance Group

View: [Standard View] | Print Version | Export | Detail | Assign | Create Notification | Create Incident

Guided Procedures | Alert Inbox

Subcategory	User	Overall	Mess...	Com...	Status	Processor	Start Timestamp
Order Creation	GUTKNECHTS	✖	✖	✖	Open		18.11.2015 13:2...
Order Creation	GUTKNECHTS	✖	✔	✖	Open		18.11.2015 13.1...
Order Creation	GUTKNECHTS	✖	✔	✖	Open		18.11.2015 10:2...
Order Creation	GUTKNECHTS	✖	✔	✖	Open		18.11.2015 10:1...
Order Creation	GUTKNECHTS	✖	✔	✖	Open		18.11.2015 10:1...



Exception Details

Menu | BPCC Process Flow | Start Rule Evaluation

Processing Status

Instance Information

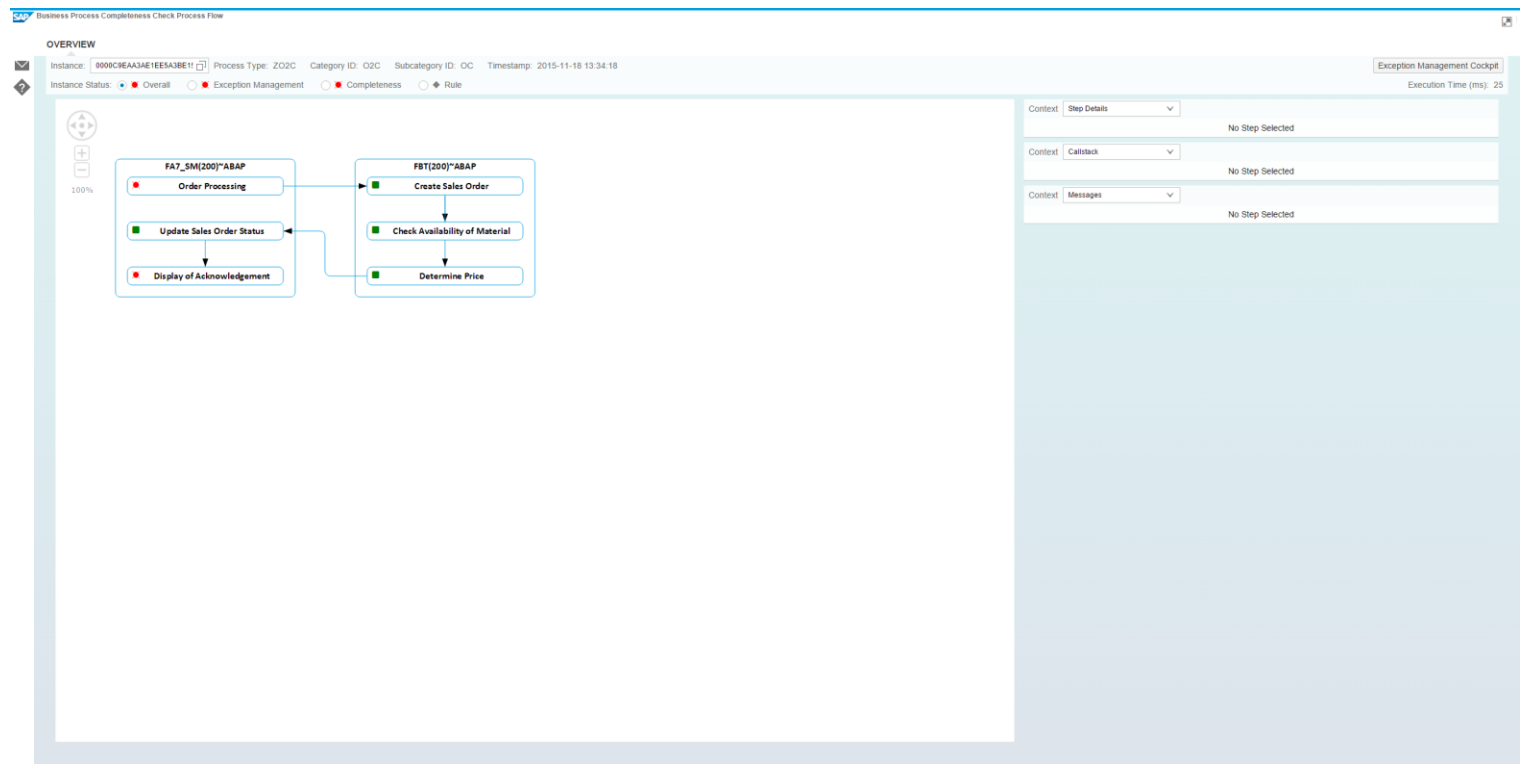
Overall: ✖ Message: ✖ Completeness: ✖

Category: Order to Cash
Sub-Category: Order Creation
Type:
Source:
Process Instance ID: 0000C9EAA3AE1EE5A3BDF388A15E0FB6

Business Example

Step-by-Step

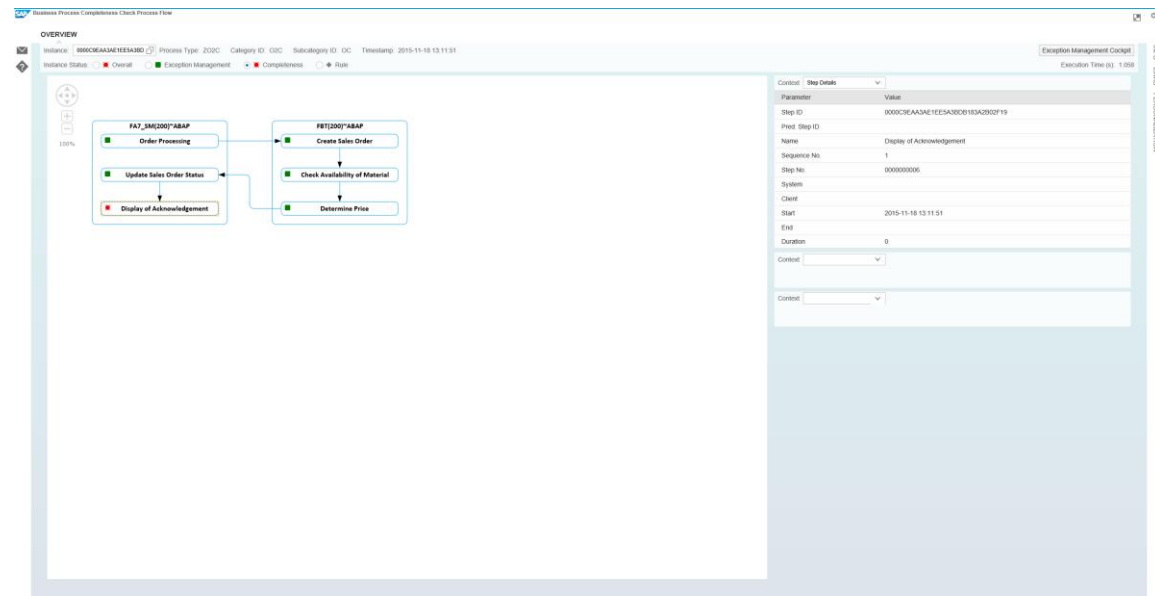
- Analysis
 - In the Process Flow Overview, John recognizes that the steps “Order Processing” and “Display of Acknowledgement” on CRM are causing problems



Business Example

Step-by-Step

- He changes the status filter to “Completeness” as John would like to check the completeness of the business process
- Step “Display of Acknowledgement” is in error state for Completeness
- John selects “Step Details” from the context menu and selects the step “Display of Acknowledgement”
- He recognizes that there is no end date available for the step which indicates that the end of the step instrumentation was not reached during execution
- An exception might be the cause



Business Example

Step-by-Step

- He changes the status filter to “Exception Management” in order to check available error messages
- Step “Order Processing” is in error state for Exception Management
- John displays the Message context information for step “Order Processing”
- Due to the problem in step “Display of Acknowledgement”, the parent step “Order Processing” ran into an error

The screenshot displays the SAP Business Process Composer interface. The main area shows a process flow diagram with two parallel paths. The left path, labeled 'F47_SMD200' ABAP, includes steps: 'Order Processing' (highlighted in red with a red error icon), 'Update Sales Order Status', and 'Display of Acknowledgement'. The right path, labeled 'F8T1200' ABAP, includes steps: 'Create Sales Order', 'Check Availability of Material', and 'Determine Price'. The 'Order Processing' step is currently in an error state.

On the right side, the 'Exception Management Cockpit' is open, showing details for the selected step. The 'Parameters' section includes:

Parameter	Value
Step ID	80000REAA3AE1EES43BE10E98D0101C
Prod. Step ID	
Name	Order Processing
Sequence No.	1
Step No.	800000001
System	
Client	
Start	2015-11-18 13:34:18
End	2015-11-18 13:34:18
Duration	0

The 'Context' section shows a callstack with the following entries:

Line	Depth	Callstack Line
1	0	/SDF/CL_EM_IPA_WRITE_AGENT====CP/SDF/CL_EM_IPA_WRITE_AGENT====CM009 1...
2	0	/SDF/CL_EM_IPA_WRITE_AGENT====CP/SDF/CL_EM_IPA_WRITE_AGENT====CM002 5...
3	0	/SDF/CL_EM_IPA_WRITE_AGENT====CP/SDF/CL_EM_IPA_WRITE_AGENT====CM009 4 M...
4	0	ZDCM_BPCC_EXAMPLE_ZDCM_BPCC_EXAMPLE.24 EVENT START-OF-SELECTION

The 'Messages' section shows a single message:

Message Type	Message Text
E	Order Processing failed

Resource Material



You can further resources here:

- [Data Consistency Management Wiki](#)
- [Setup Guide – Business Process Completeness Check](#)
- [SAP Help – Business Process Completeness Check](#)